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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/621,257 | 07/15/2003 | Srinivas Sreemanthula | 944-001.115 | 9732 |

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EXAMINER

HAN, CLEMENCE S

ART UNIT PAPER NUMBER

2616

DATE MAILED: 05/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/621,257 | Applicant(s) SREEMANTHULA ET AL. | |
| | Examiner Clemence Han | Art Unit 2616 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-8,14 and 16-18 is/are rejected.
- 7) ☒ Claim(s) 3, 9-13 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claim 1, 4, 14 and 16-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Yanagihara et al. (US Pub. 2003/0152032).

Regarding to claim 1, Yanagihara teaches a method for use in accelerating throughput of segments from a sender to a receiver, the sender and receiver each including a protocol layer for sending and receiving the segments, the method including: step in which the sender protocol layer transmits segments at a rate of transmission and increases the rate of transmission (S31 in Figure 7) based on feedback the sender receives from the receiver (RR in Figure 1); the method characterized by: a step which the sender receives a message including one or more bits set to convey an indication of low congestion (RR, see Figure 5); and a step in which, in response to the indication low congestion (S23 in Figure 7), the sender increases the data transmission rate so as to achieve increased throughput (S31 in Figure 7).

Regarding to claim 4, Yanagihara teaches the protocol layer is a transport layer of real time control protocol layer or other streaming or datagram protocol [0009].

Regarding to claim 14, Yanagihara teaches a telecommunication device, including a protocol layer for sending and receiving segments, the telecommunication device also including: means by which the protocol layer transmits segments at a rate transmission and increases the rate of transmission (S31 in Figure 7) based on acknowledgements indicating successful receipt of the segments (RR in Figure 1); the telecommunication device characterized by: means by which the telecommunication device receives an indication of low congestion (RR, see Figure 5); and means by which, in response to the indication of low congestion (S23 in Figure 7), the telecommunication device increases the data transmission rate so as to achieve increased throughput (S31 in Figure 7).

Regarding to claim 16, Yanagihara teaches a telecommunication system, comprising a plurality of intermediate nodes and also a plurality of telecommunication devices, wherein at least one of the telecommunication devices includes a protocol layer for sending and receiving segments, the telecommunication device including: means by which the protocol layer transmits segments at a rate of transmission and increases the rate of transmission (S31 in

Figure 7) based on acknowledgements indicating successful receipt of the segments (RR in Figure 1); the telecommunication device characterized by: means by which the based on acknowledgements indicating successful receipt of the segments receives an indication of low congestion (RR, see Figure 5); and means by which, response to the indication of low congestion (S23 in Figure 7), the telecommunication device increases the data transmission rate so as to achieve increased throughput (S31 in Figure 7).

Regarding to claim 17, Yanagihara teaches a computer program product comprising: computer readable storage structure embodying computer program code thereon for execution by a computer processor in telecommunication device having a protocol layer for sending and receiving segments, with said computer program code including instructions for performing: a step in which the protocol layer transmits segments at a rate of transmission and increases the rate of transmission (S31 in Figure 7) based on acknowledgements the sender receives from the receiver (RR in Figure 1); the computer program characterized by including instructions for performing: a step in which the telecommunication device receives an indication of low congestion (RR, see Figure 5); and a step in which, in response to the indication of low congestion (S23 in Figure 7), the

telecommunication device increases the data transmission rate so as to achieve increased throughput (S31 in Figure 7).

Regarding to claim 18, Yanagihara teaches a method for use by a telecommunication device, the telecommunication device including a protocol layer for sending and receiving segments to and from another telecommunication device, the method characterized by: a step in which the telecommunication device performs a process of congestion detection (Figure 1); and a step in which the protocol layer transmits an indication of low congestion (S23 in Figure 7) to the other telecommunication device (Figure 1).

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claim 2 and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yanagihara et al..

Regarding to claim 2 and 5-8, Yanagihara teaches a method for use in accelerating throughput of segments from a sender to a receiver, the sender and receiver each including a protocol layer for sending and receiving the segments, the method including: step in which the sender protocol layer transmits segments at a rate of transmission and increases the rate of transmission (S31 in Figure 7)

based on feedback the sender receives from the receiver (RR in Figure 1); the method characterized by: a step which the sender receives a message including one or more bits set to convey an indication of low congestion (RR, see Figure 5); and, a step in which, in response to the indication low congestion (S23 in Figure 7), the sender increases the data transmission rate so as to achieve increased throughput (S31 in Figure 7). Yanagihara, however, does not teach the protocol as TCP or the method used in specific network like RAN, EGPRS, GPRS, UMTS or CDMA. The congestion control in those protocol and networks are well known in the art. It would have been obvious to one skilled in the art to modify Yanagihara to be used in different protocol or different network as well known in the art in order to optimize transfer rate in different protocol or different network.

Response to Arguments

5. Applicant's arguments filed March 6, 2006 have been fully considered but they are not persuasive.

6. In response to pages 8-11, the applicant argues that Yanagihara does not teach one or more bits set to convey an indication of low congestion. Yanagihara teaches one or more bits (bits in RR in Figure 5) set to convey an indication of congestion (last sentence of Abstract, [0067]). Those bits are also an indication of low congestion ("congestion is extremely slight" in [0096]).

Allowable Subject Matter

7. Claim 3, 9-13 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clemence Han whose telephone number is

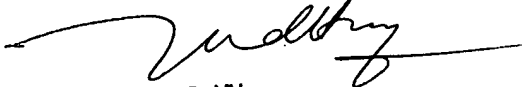
(571) 272-3158. The examiner can normally be reached on Monday-Thursday 7 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C. H.

Clemence Han
Examiner
Art Unit 2616


HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600